Nasr's

Clinical Pediatrics

For undergraduates

3rd Edition

INDEX:

إهداء..

إلى والديّ الحبيبين أسأل الله أن يبارك لي فيهما... ويحفظ إخوتي الغاليين ..

إلى جنتي وزوجتي الرائعة ..

فالفضل لله ثم لها في كل هذا العمل .. بل وفي كل معاني الحياة والسعي للتميز بداخلي ...

إلى ابنتي الغالية رهف ..

أسأل الله أن ينبتها نباتا حسنا ويجعلها لنا قرة عين ...

إلى استاذي ومعلمي د/ محمود علام ... فكم كان لي سندا ومعينا ومحفزا .

إلى كل من ارتشف من عمل سخرني الله له.. فدعى لي بظهر الغيب أو ساق الله لي بي الخير..

محبكم..

General Roles

Before any examination

"WIPE"

-*W*ash your hand

-*I*ntroduce your self

-*P*osition → of the doctor → at Rt. side the patient

of the patient → flat in the bed

لو infant يمكن الكشف عليه على حجر امه باستئذان الدكتور لمنع بكاءه

-*E*xposure→adequate exposure started by the mother.

General examination

- المقدمة
- *4 Groups*
- *4 Regional examination*
- *Other systems review*

General condition of the patient المقدمة

<2y → -**Fair**, ill or good

- **Flat** or has special position

- **Comfortable in bed** or not "as irritable in bed"

E.g. The patient is fair flat & comfortable in bed

>2y → -conscious level –> usually **fully conscious**

-Orientation → **oriented** or not

-Co-operation→ **co-operative** or not

E.g. The patient is fully conscious, oriented &co-operated

4 Groups

1) BDF:

Built → over built - **average** - under built

Decubitus→ نومة العيان فى السرير

- Usually **no special decubitus**

-But may be:

a) Squatting قاعد مقرفص {In case of fallot tetralogy} "لكن يعتبر Special Position"

b) Semi-sitting "orthopnea"

*N.B: other decubitus are rare in pediatrics

Facies →

-Look for special facies → **No special facies** Or special facies

Most common facies: "Details later"

Mongolian → Down $ **Thalassemic** → CHA

Senile→ Marasmus **Buffy** → KWO & Nephrotic $

Moon face→Cushing $

2) Vital signs:

A) Pulse:

-By comment on radial pulse

- In infant we comment on Apical pulse.

E.g. Pulse is 70 b/m, regular, equal in both sides, condition of BV normal, average volume with no special ch.ch

- ***Rate***: by counting pulse as 70 B/M
- ***Rhythm***: **Regular** or irregular usually regular

**** *If radial +*

- ***Condition of B.V*** usually **normal**
- ***Equality in both sides*** Usually **equal in both sides**
- ***Special characters*** **no special Ch. Ch** ----

  or has special Ch. Ch as

  "**Water hummer pulse**"

  Occur in big pulse volume "hyperdynamic-circulation"

NB: **Cause of big pulse volume** "hyperdynamic-circulation"

-Anemia -AVF -AR -PDA -Hyperthyroidism

***Causes of small pulse volume**

-MS - AS -PHTN - HF

- ***Volume*** it is the (systole – diastole)

  May be → Big -- **Average** --- Small volume

- ***Peripheral pulsation***

B) Blood pressure:

-It is measured by using special cuffs according to the age.

- V. important in case of:

-Nephrotic $ -Nephritis$ -Cardiological cases

-Normal measurements:

-Average BP in newborn =70/50mmHg

-Every three years (systole increases 10 mmHg while the diastole increase 5 mmHg) e.g. at 6 yrs. BP=90/60

-You can measure BP in lower limb while the patient is in prone position, cuff around the thigh & the stethoscope in popliteal fossa

C) Temperature:

36.5-37.2 → Normal <35 → Hypothermia

>37.5-40 → Fever >40 → Hyperthermia

- Measure temperature

a) Oral b) Rectal-0.5 c) Axillary+0.5

D) Respiratory rate

-by counting the respiratory cycles per minute

-DON'T TOUCH THE PATIENT!!

-Tachypnea? Sharp borders

A) At birth to <60 day → ≥ 60c/m

B) 2months to 1year → ≥ 50c/m

C) 1year to 5years → ≥ 40c/m

4-Colours:

Pallor

-In **mucous membrane of lips,** face or **palmer creases**

-Never in Conjunctiva because of endemic trachoma in Egypt

- Causes: Most common → **Anemia**

Others→edema &shock

Jaundice

-Yellowish discoloration of sclera & skin (Due to ↑serum level of bilirubin **> *2-3 mg* %. & > *7 mg* % in neonates).**

- Site of examination in **sclera of lower fornix**

-jaundice is best seen in the day light & it may be undetectable in the artificial light

-DD: Carotenemia "doesn't appear in sclera"

Cyanosis

- Bluish discoloration of skin &mm due to↑reduced Hb. more than 5 gm %

- Site of exam: **tongue**, lips, hands; nails. Examination in **daylight** is essential.

-Types → a) Central b) Peripheral

	Central cyanosis	Peripheral cyanosis
Site	Tongue, mm & Extremities	Extremities
Temperature of extremities	Warm	Cold
Effect of warming	No improvement	Improvement
Clubbing	+ve.	-ve.
Causes	-Central depression -Respiratory diseases -Congenital cyanotic heart disease	-Peripheral circulation disturbance -Cold weather
Types	-Potential. -Permanent.	

4) Anthropometric measurements:

The main (Wt., Height or Length, HC, MAC)

Wight "Wt.":

-Normal standard at birth (3-3.5) kg

From 2nd year (Wt. =age by years ×2 +8)

-Then ↑ ¾ kg /m → **1st 4m** =6 kg (at 4 months)

-Then ↑ **2/4** kg/ m→ **2nd 4m** =8kg (at 8 months)

-Then ↑ ¼ kg /m → **3rd 4 m** =9 kg (at 12 months)

Height or length:

-The standard is **measuring the height** which done when the patient stands.

-When do you measure the length "**patient flat on the table**"?

-Infant -Not fully conscious -Motor affected pt.

-Normal standard length

Then (Ht. = Age by years ×5 +80)

-At birth = 50 cm -12 m = 75 cm

-2yrs = 87.5cm

Head circumference:

- It is the maximum transverse diameter of the head

- From mid-point between anterior hair line &eye brows anteriorly &the maximum bulged point in occiput.

at birth = 35 cm 6m= 43cm 1yr= 45 cm

2yr= 47cm 5yr=50cm 12yr= 52.5 cm

Mid arm circumference (MAC):

-It is the transverse diameter of mid- point of the arm.

-From acromion process to olecranon process

- Prefer to measure it in the **(Lt)** arm

-Has significance from 1-5 yrs.

>13.5cm →normal 12.5-13.5→mild to moderate malnutrition

<12.5 →severe malnutrition

Others: "only on request and in some cases"

- ✓ **BMI** = (Wight) / (height by meter)^2
- ✓ **Upper segment /lower segment (Us/Ls) Ratio.**

-Us: from crown to symphysis pubis.

-Ls: from symphysis pubis to heal.

-At birth= 1.7:1 -At 3yrs= 1.3:1 -7yrs= 1:1 as adult

- ✓ **Span**

-From the tips of fingers in one side to the tips of fingers in the other side when both arms at Right angles.

-roughly the height equal to the span.

(Us/Ls) Ratio & Span

هام في حالات

Short Stature

Regional Examination

1) Head &neck

Skull

- ***HC:*** a) Normal b) Microcephaly c) Macrocephaly
- ***Shape:*** a) Normal b) Other special shapes as
  Brachycephaly → Down $ Box shape→Rickets
- ***Sutures:*** a) Not felt →normal b) Wide separation→increase ICT & hydrocephalus
  c) Ridge→ craniosynostosis
- ***Fontanels:*** -

Posterior fontanel (PF) Closed shortly after birth or opened up to 1cm.

Anterior fontanel (AF)

Comment on:

Opened or not

Size

- **Normally closed at 9-18 m**
- *Average*
  - **At birth: 3 fingers×3 fingers=4.5×4.5cm**
  - **At 6 m: 2×2 fingers =3×3 cm**
  - **At 12 m: 1×1 fingers =1.5×1.5 cm**
  - **At 18 m closed**
- If closed before 9 months → **premature closure**

Surface:

- **Normal → At level of skin**
- Bulging → Level above the skin e.g. increase ICT
- Retraction→ Level below the skin e.g. Dehydration.

Consistency:

-Lax→normal -Tense→increase ICT

Clinical importance of anterior fontanel:

A) Assessment of growth

B) If bulging: increase intracranial tension

C) If depressed (sunken): e.g.: shock& dehydration

D) Premature closure: occur in microcephaly & craniostenosis

E) Delayed closure: occur in (**MACRO HIP**)

-Mongolism "down" - **A**chondroplasia -**C**retinism

-Rickets -**O**steogenesis imperfecta - **H**ydrocephalus

-Increase ICT -**P**rematurity

F) Absence at birth: due to excessive molding of skull bones or overlying caput succedaneum

- **Skin:**
  -Normal
  -Thin, shiny& stretched with visible veins →**Hydrocephalus**
- **Hair:**

-Normal - Abnormal as:

Fine silky hair → Down $

Coarse & dry hair → Cretinism

Fragile hair → KWO

- ***Swelling:***

  Rare "hematoma or tumor"

  Reservoir (valve) of shunt in hydrocephalus

- ***Oral cavity:***

  Detect abnormalities & congenital anomalies

  Comment on teeth eruption

Face:

-Normal or detect any abnormality

- Has special facies (see later) وتوصفها تفصيلا

Neck:

-Comment on:

a) Carotid artery b) Jugular vein

c) Swelling as thyroid d) Neck lymph node "see later"

2,3) Upper limb& lower limb:

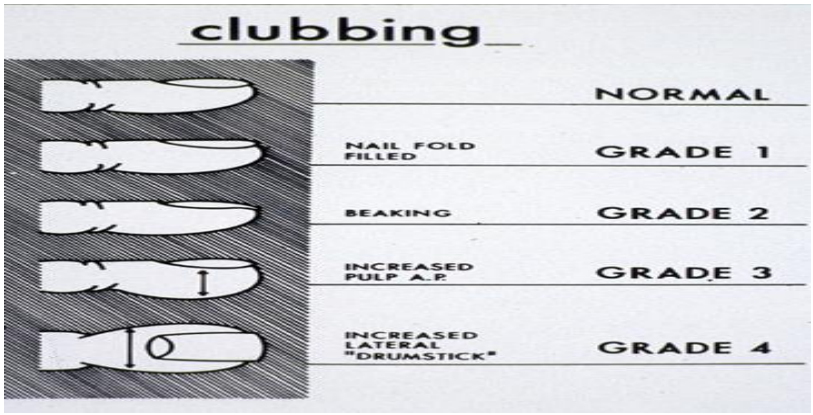
-Detect any abnormality

-Comment on:

a) Edema

b) Clubbing

- Cyanotic or pale clubbing.
- Degree of clubbing →



4) Skin:

-comment on:

A) Color: as erythema, Hypo &hyperpigmentation

B) Elasticity Depend on water content

C) Texture & Thickness

Decreased→Marasmus

Increased →KWO & Obesity

Goose skin in vit.A deficiency.

D) Rash -Itchy or not -Size -Site -Palpable or not

Other systems review

Centiles "Growth percentiles"

- They are graphic presentation for the pattern of growth
- They are arranging of child in comparison to normal children of the same age &sex
- There is a chart for each measurement"wt., height or length, HC…. etc.
- Normal child plotted between **3rd -5th centiles & 95th -97th centiles**
- Abnormal **above 95th -97th** centiles or **below 3rd -5th centiles**
- **Stander is 50th centile**

Uses:

- ✓ **Do determine the child normal or abnormal**
- ✓ **Follow up of the growth**
- ✓ **Determine stander for nutritional assessment**

Nutritional assessment

(Station)

By:

-Welcome classification -Water low classification +MAC

Welcome classification:

***Wt. for age (**wt. of child /slandered wt. for age) ×100

-If>80% → normal

-60-80% → |**Edema→** KWO |**No edema →** simple under weight

-<60% → |**Edema→** Marasmic KWO |**No edema→** Marasmus

Water low classification:

A) ***Wt. for length (**Wt. of child/ slandered wt. for length) ×100

| >80% → Not wasted | <80% → Wasted

B) ***Length for age*** (Length of child / slandered length for age) ×100

| >90% → Not stunted | <90% → Stunted

History Taking

Personal history

(NASR +order, consanguinity & informer)

-N→ name اسمه ايه ؟ "ثلاثى"

-A→ age كم عمره ؟ "بالشهور في اول سنتين"

-S→ sex ولد ولا بنت

-R→ residence ساكنين فين

-Order→ ترتيبه فى العيله

e.g.: male patient Khalid Ahmed Ali 17 months from Helwan he is the 3rd sibling of consanguineous marriage, the informer is His mother.

-Consanguinity→ هل ابوه وامه قرايب قرابة دم ؟

-Informer

+special habits of parents

c/o: = complaint

بشكوى الام وتكتب من مده اد ايه ؟

HPI = history of present illness: see later ☺

-حلل الـ complaint

-وأسأل عن كل مرض "بمحاوره" ولو الحالة General مثلا شوف معاها System ولا لأ وحسب الوقت اكتب الشيت بتاعه ..

Past history:

-D→drug intake بياخد اي أدوية اخرى ؟

-O→operations or blood transfusion عمل عمليات او نقل دم

-D→diseases عنده اي امراض اخرى

Family history:

-Of similar condition حد في العيلة عنده نفس المشكلة

-Of chronic diseases حد في العيلة عنده امراض مزمنة

Perinatal history:

لو عنده **Congenital disease**

أو المشكلة بدأت **perinatal**

أو أي **Infant**

Prenatal history:

Exposure of mother to teratogens

- **Drugs** خدتي اثناء الحمل ادوية غير الفيتامينات
- **Vaccination** خدتي اي تطعيمات اثناء الحمل
- **Sever disease (DM, HTN, toxemia of pregnancy)** كنتي بتعاني من ضغط او سكر او تسمم حمل
- **Infection "STORCH"** سخنتي ومعاها جالك طفح جلدي او حيل – جالك التهاب كبدي –درن او سل
- **Irradiation** اتعرضتي لأي آشعة غير تليفيزيونية اثناء الحمل

ومهم تسأل عن الوقت اللي اتعرضت فيه

Natal history:

- **Premature rupture of membrane** مياة الولادة نزلت عليكي بدري
- **Offensive or infective amniotic fluid** كان معاها سخونية او ريحتها كانت وحشة
- **Normal or CS** ولدتي طبيعي ولا قيصري – في البيت ولا المستشفى وهل الدكتور استخدم شفاط او جيفت
- **The patient was born full term, preterm, post term or LBW……. etc.** ابنك نزل في معاده ولا بدري او متأخر.

- **Complication to the pt. during labor →Distress, trauma …etc.** حصله اي مشكلة ساعة الولادة مثلا اتزنق او اتخبط او نزل مش عارف يتنفس
- **Complication to the mother → Prolonged or obstructed labor** حصلك اي مشاكل اثناء الولادة مثلا اتعثرت او طولت

Post-natal:

- **1st cry** عيط امتى ؟
- **Need incubation or NICU** ؟ هل احتاج حضانة او رعاية مركزة ؟ وليه
- **Pallor** ابهت ؟
- **jaundice** اصفر؟
- **Cyanosis** ازرق؟
- **Bleeding** نزف ؟
- **Convulsion** اتشنج؟

Dietetic history:

أي حالة Nutritional Disorders

أي Infant

A) Breast feeding: رضع طبيعي

- **Exclusive or predominant for how long** قعد اد ياه يرضع بس طبيعي وهل كان معاه مشروبات تانية ؟
- **From one side or both** كان بيرضع من ناحية واحدة ولا الاتنين
- **Frequency** تقريبا كام مرة في اليوم
- **Regular or on demand** ؟ في وقت محدد ولا لما يطلب
- **Signs of satisfaction** بعد الرضاعة كان بيعمل ايه ؟ مثلا بينام او يرجع يلعب ولا بيعيط
- **Difficulties with breast feeding** حصلك او حصله اي مشاكل مع الرضاعة
- **The ending of breast feeding**؟ هل وقفتي الرضاعة الطبيعية ؟ امتى

B) Artificial feeding: اديتيله لبن حيواني او بودرة

- **Indication** ليــه ؟
- **Type** نوعه ايه
- **Method** بتديهوله ازاي
- **Frequency** كام مرة في اليوم
- **Amount** كمية اد ايه في الرضعة ؟
- **concentration** تركيز اللبن اد ايه ؟
- **Complications** حصله اي مشاكل معاها

c)Weaning: بدأتي تأكليه ؟

- **When start** بداتي امتى ؟
- **Types of food** بدأتي بايه ؟
- **Complication with weaning** حصله اي مشاكل مع الاكل ؟

Vaccination history

–Usually the patient is fully vaccinated according to his age خد تطعيماته كاملة ؟

Developmental history:

–Chronological or according to age

Assessment of development

Age mons.	Gross motor	Fine motor	Social skills	Language skills
3	On prone: -Raise chest &supports weight with forearm on erect: -Head support	-Opens hands spontaneously	-Social smiles **4mons:** -Recognize mother	-Coos -Laughs loud
6	-Sits supported	-transfer objects (from hand to another)	-Shows like &dislikes	-Bubble"ba, ba" sounds
9	**8mons:** Site unsupported **9mons:** Creeps& crawls **10mons:** Stand supported	-Grasp object by thumb & fingers (pincer grasp)	-Plays (peek-a-boo) Hiding face then suddenly uncovering it	-Double bubble "dada, mama" sounds
1yr	-Walks supported **13-15m:** walk unsupported	-Release object to mother on request	-Comes when called plays (simple ball)	-1-2 meaningful words
18=1.5 yr	-Ascend stairs supported	-Build tower of 3 cubes -Points to parts of body -Feeds with spoon	-Mimic actions of others	-At least 6 words
24=2yr	-Run well -Ascend stairs unsupported "one step at time" **30=2.5yr** Ascend stairs "alternated feed"	-Build tower of 6 cubes	-Play with other children	-Sentences of 2-3 words
36=3ys	-Tricycle -Climb up stairs well -Jumps on spot	-Build tower of 9 cubes -copies circles & crosses	-Eat with knife & fork -goes toilet alone	-Full name, age, sex -Sentences of 4 words -4 colors
5yr	-Jump on one feet -walks heel to toe along line	-draws a man (6parts) with pencil	-Chooses own friends -Dramatic group play	-Fluent speaker -Asking about: words & things meaning

** Up to 2yrs of age chronological age corrected according to gestational age

Down syndrome

The 1st question, what is the association/complication?

Down or not

By History:

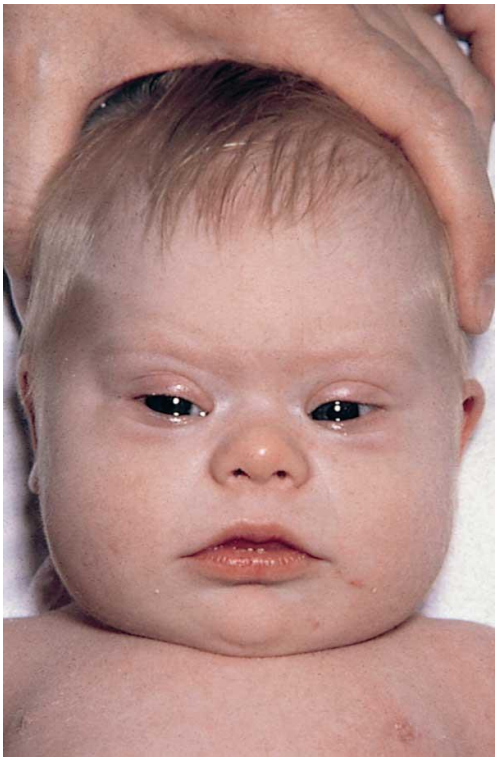
- Delayed motor &mental development
- Hypotonia

BY Examination:

- المقدمة
- BDF **f→ Mongolian facies**
- Vital signs
- Anthropometric measurements →short stature.
- Regional examination:

حالة الثلاثيات ☺

1)H&N:



a) Skull

- **-Size& shape**→Microcephaly & Brachycephaly
- **Delayed** closure of AF & teeth eruption
- **-Hair**→fine silky hair

b)Face

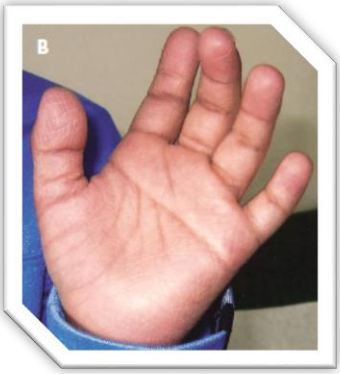
- **-Eye**→*-Upward slanting of palpebral fissure*
  -Hypertelorism -Epicanthic fold
- -**Nose**→ *depressed nasal bridge*
- -**Oral**→ *Micrognathia*
  Pseudo macroglossia
  -Scrotal tongue "deep furrows tongue"
- -**Ear**→*-Small size*
  -Deformity
  -Low set ear

c) Neck

-Short

-Broad

-increase nuchal "nape" skin



2) Upper limb

- Brachydactyly

-Clinodactyly

-Simian creases

3) Lower limb

-Wide spread between big toe & other toes "sandal gap"

-Ape line

- Acrobatic sign

4)Abdomen

-Pot belly abdomen

-Divarication &hernia

-Ptosed organs

+ 5)Other system affection:

Chest, cardiology or abdomen

Types:

The surest detection of the type only by karyotyping

Age of the mother at time of conception

* If >35 years → Most probably non-disjunction

* If below 35 years →Non-disjunction vs. translocation

-The third type is the **mosaic** type which has the **least clinical features & more better mentality.**

Associations & complications:

- **History & examination of the affected system**

-Most common association → Congenital heart disease or congenital anomalies

-Most common complication → Chest infection & gastroenteritis

Diagnosis:

As .. A case of down $ most probably due to" non-disjunction vs. translocation" Associated with ..... Complicated with .....

Down sheet:

1-Personal history:

As usual

2-c/o:

-Delayed milestone of growth & development

-Complications→infection especially chest

-Associations→ Congenital infection e.g.: VSD

3-HPI:

-Analysis of complaint

-Ask about hypotonia

-Abdominal distention & umbilical hernia

-**Associations & complications**

4-Developmental history → Delayed motor & mental development

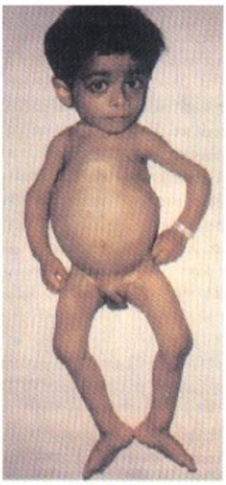
5-past history- as usual

6-family history:

Age of the mother at time of conception {>35 y-<35y}

Repeated abortions

Rickets


Rickets.

Rickets or not:

By History:

-Delayed motor development -Delayed dentation

By examination:

4 groups + المقدمة →Short stature.??

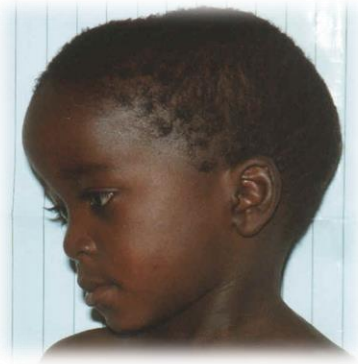
Regional examination

H&N:

-Increase HC -Frontal bossing -Box shape skull

-Delayed closure of AF -Delayed teeth eruption

- Craniotabes: in infant <1yr in "partial or occipital bone"

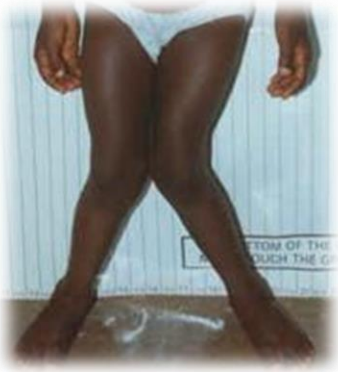


UL:

- Broadening -May show deformity

LL:

-Broadening



-Marfan sign (groove in medial &may in lateral malleolus)

-Deformities

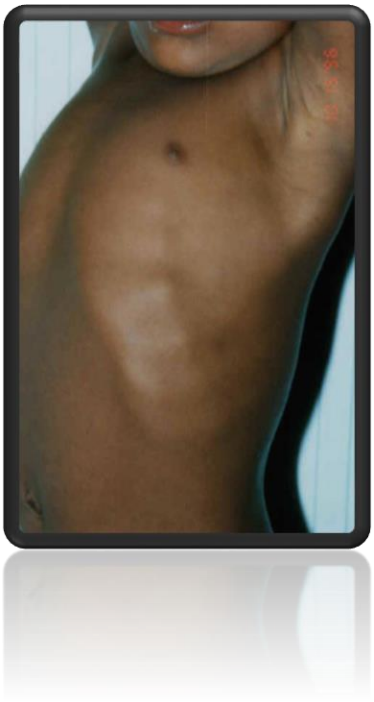
Genu-varum→knee separated & ankles closed

Genu-valgum→knee close & ankles separated

Bow leg = Genu-varum

Knock knee = Genu-valgum

Chest:



-**Rosary beads** = rickets rosary -Longitudinal sulcus

-**Harrison sulcus** → transverse sulcus at attachment of diaphragm

-Deformities→ as **pigeon shape chest**

Abdomen:

-**Pot belly abdomen** = protruded abdomen

-Divarication of recti -Hernia -Ptosed organs

Back:

-Correctable kyphosis

Types:

- < 2 years → Infantile - 2-3 years → Delayed Infantile - 3 years→late rickets

Etiology:

- Rachitogenic diet → ask about ***Dietetic history***
- Lake of exposure to ultraviolet rays
- Deficiency in the storage
- Vit D resistant
- End organs diseases
- Drug intake

Complications:

-Chest infection -Gastroenteritis -Tetany -Anemia -Deformities??

Diagnosis:

As.. A case of infantile rickets most probably due to Rachitogenic diet &lake of exposure to UV rays complicated with…….

Rickets sheet:

1-Personal history:

Age→commonest age (6m-2y) = infantile rickets

2-c/o:

-Delayed motor milestone

-Delayed dentition

-Deformities

-***Complications "usually chest infection"***

3-HPI:

-Analysis of the complain

-Lake of exposure to ultraviolet rays

-liver & kidney problems diseases

-Drug intake "antiepileptic drugs – cortisone "

-Associated complications

4-Developmental history: delayed motor development

5-Diatitic history: for Rachitogenic diet

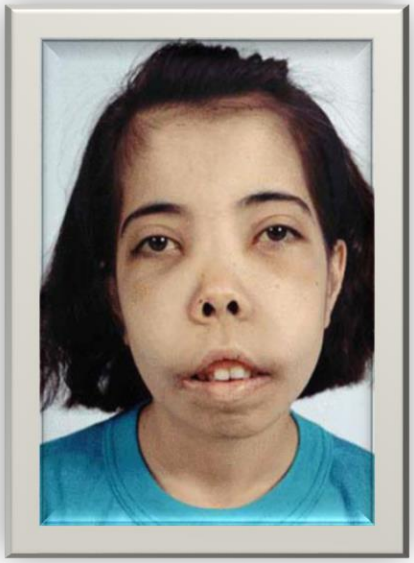
4-Past history:

As usual + repeated infection

5-Family history:

-Similar condition -Socioeconomic state - Defective exposure to UVR

Chronic Hemolytic Anemia



CHA or not:

-By History:

Anemia→ Pallor, easily fatigability &loss Of Concentration

Chronic hemolytic→ **Frequent blood transfusion**

Anemia not responds to hematinics

-By Examination:

المقدمة

BFD F→ mongoloid facies or thalassemic facies

Vital sign

Colors

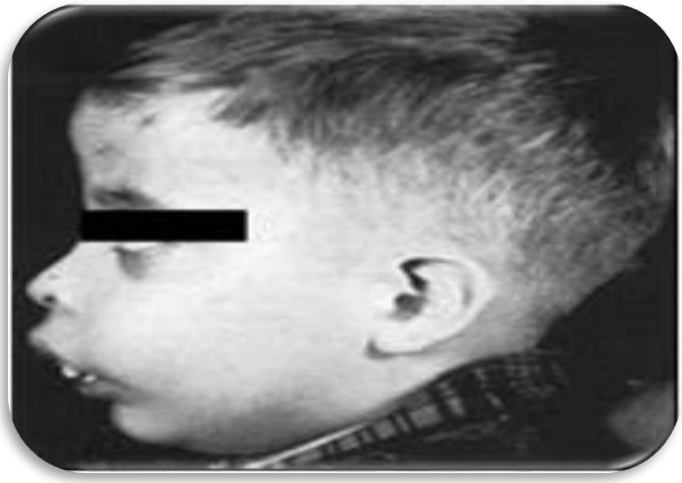
-**Pallor**→anemia (it usually disappear when the patient receive blood transfusion)

-**Jaundice**→ Chronic hemolytic "mild jaundice" (sever in complications)

-**Muddy color**→ hemosiderosis

Anthropometric measurements

-**Short stature** & growth retardation



regional examination

1)H&N:

a)skull

-Increase HC

-Frontal bossing

b)face

- Mongoloid facies

-Upward slanting of palpebral fissure

-Hypertelorism

-Depressed nasal bridge

3 زي الDown

-Prominent zygoma

-Prominent maxilla

-Separated central incisors

3 غير الDown

c)Neck

- LN

2)Abdomen:

-HSM (hepatosplenomegaly)

يعني بتكمل الحالة لازم بـــ Abdominal examination

Types:

1-**Sickel cell anemia**→history of sickle cell crises {sever pain in limbs & Abdomen} **بتوجعه** أو **رجله بتوجعه أو بطنه بتوجعه** أوي ايده

2-**G6PD**→intermittent , related to foods or drugs **مع اكل معين أو دوا معين**

3-Receiving Blood transfusion <6mon او غير مرتبط بحدود 6 شهور → **Spherocytosis**

4-Receiving Blood transfusion >6mon→ **B-thalassemia**

-Types of B- thalassemia:

-Minor→ مبينقلش دم الا نادر جدا

-Intermediate→ بينقل بالشهور

-Major→ بينقل بالأسابيع

Etiology:

لازم أسأل عن ال FH

Complications:

- Hemosiderosis - Spleen→hypersplenism or splenectomy

-Infection -Complication of blood transfusion

-Short stature -Pathological fracture

-Heart failure -Obstructive jaundice

Diagnosis:

مفيش حاجه اسمها حالة Thalassemia في الكلينيكال لكن بتقول

Pallor for investigations Mostly Chronic hemolytic anemia most probably B-thalassemia major complicated with …….

CHA sheet:

1-Personal history: عادي زي اللي فات

2-Complaint: بلفظ الأم مثل

Complications حاجة من أعراض الانيميا او الـ

pallor بهت

abdominal enlargement from HSM بطنه بدأت تكبر

jaundice عينه بتصفر

Or "For bl. Transfusion". والشائع انها تقول جاية تنقل دم

3-HPI:

- ***analysis the complain***
- ***manifestations of anemia*** بتبهتت بتتعب من المجهود بتهنج كتير عندك صعوبة في التركيز
- ***chronic hemolytic***
  - ***History of frequent blood transfusion & "when Bl.T was started?"*** بتنقل دم كثير وبدأت تنقل دم من امتى ؟
  - ***abdominal enlargement*** بطنك بدأت تكبر

- jaundice عينك بتصفر
- color of urine & stool؟ لون البول ولون البراز

- -Type of CHA
  - relation to food or drug intake؟ التعب بيجيلك لما تاكل حاجة معينة او تاخد دوا معين
  - Association with severe pain in extremities & abdomen عندك وجع فظيع في اديك او رجليك او بطنك
  - onset of blood transfusion؟ طيب بدأت تنقل دم امتى
  - associated complicationsمعدلات نقل الدم عندك بدأت تزيد او شيلت الطحال
  - لونك بدأ يغمق او يتغير

4-Past history:

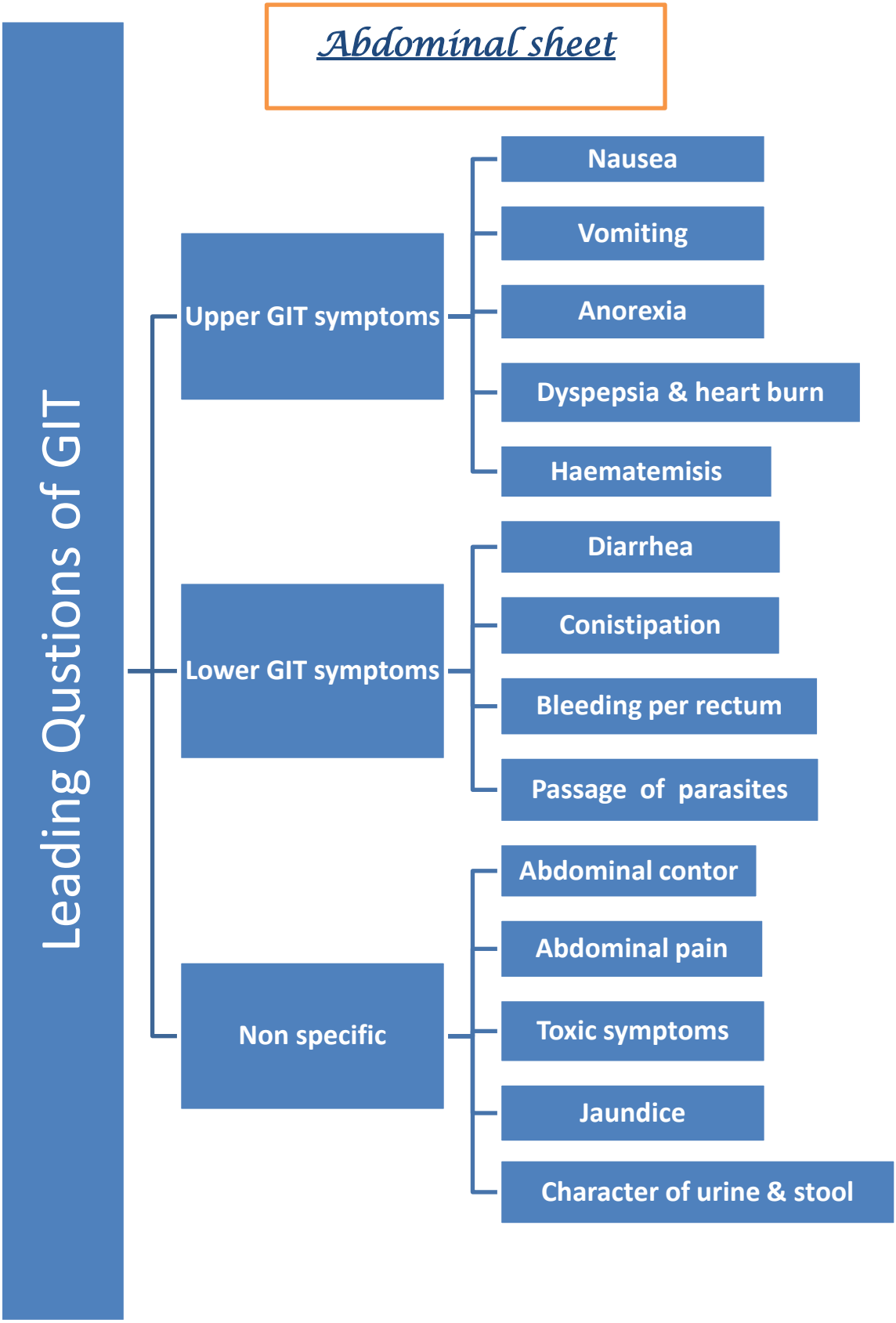
5-Family history: Of similar condition حد في العيلة عنده نفس الحالة

Abdomen

A Case complaining of symptoms related to abdomen

Leading questions of the GIT :

Abdominal sheet



Abdominal Examination

Exposure from Nipple to mid-thigh

A) Inspection:

** Confirmed by palpation*

Shape of abdomen:

-Normal shape in pediatrics → **Flat or slightly bulge** with **preserved waist**.

-Abnormal shape in pediatrics→ Concave (scaphoid)

More bulge - full flanks

Subcostal angle:

- It is the angle between the 2 costal margins
- Normally→ **Acute or right angle**
- Abnormally→wide (obtuse) angle

Divarication of recti:

- Separation of 2 rectus muscle during active movement of abdominal muscle

It is due to:

- Weakness of muscles
- Increase intra-abdominal pressure

***It's normal in 1st 2 years**

Epigastric pulsation:

- If visible & not palpable or palpable by the palm of the hand→Aortic pulsation
- If from Rt. side → Hepatic
- From tip of fingers→ RT ventricle (heart)

Umbilicus:

Normally midway, rounded, flat or slightly inverted

- Site→Normally **midway between xiphoid process & symphysis pubis**
  - Shifted downward by HSM or ascites
- Shape→**Inverted** or everted, slit shape or rounded

- pigmentation & discharge

Hernia:

- Ask the patient to cough or straining →there will be expansible impulse with cough

+ Pubic hair:

- **In adolescent,** only +ve or –ve

Abdomen movement with respiration:

- Normal→**The abdomen moves freely with respiration**
- In peritonitis→ Limited movement or no movement at all

Skin:

- **Scar, pigmentation & dilated veins**

Visible peristalsis:

- In intestinal obstruction & Marasmus

Breast

- For gynecomastia →abnormal enlargement & tender glandular tissue
- Normal in infant **"Neonatal gynecomastia?"**

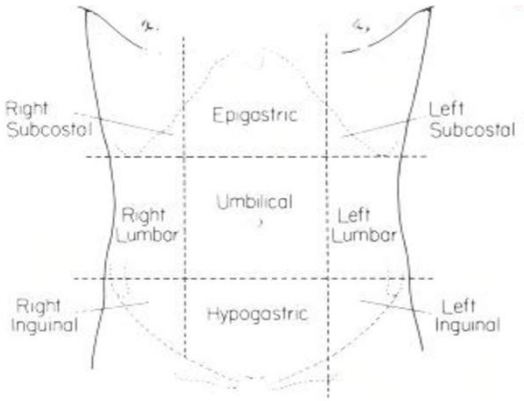
Genitalia:

- Undescended testis, hypospadias, hermaphrodites, genital edema ….etc.

Back:

- Bifid spin, meningocele, meningomyelocele …etc.

B) Palpation:



Superficial palpation:

دفء ايدك – قول للمريض أثنى ركبك – قول للمريض فيه حته فى باطنك بتوجعك؟

- To all 9 areas
- Search for →Tenderness - superficial masses - rigidit

Deep palpation:

→ Search for organomegaly

a) Liver:

Rt. lobe

- Span→ From upper border to lower border in MCL
- Surface → Smooth or nodular
- Consistency→Soft, firm or hard
- Border→Sharp or rounded
- Tenderness
- Pulsation

Upper border → by heavy percussion in MCL.
Lower border→ from RT iliac fossa to RT costal margin.

Lt. lobe

- From umbilicus to xiphoid process

b) Spleen:

- Search for it from Rt. iliac fossa toward Lt. iliac costal margin because the spleen is Carried by **Phrenicocolic ligament**
- If you find the tip of spleen measure it to Lt costal margin??
- Then comment on surface, consistency & notch (in upper Rt border)

before you say no palpable spleen make bimanual technique then search in **Lt. iliac fossa??*

c) Kidney:

- Bimanual technique
- Ant& post ballottement (according to received hand)

C) Percussion:

a) For ascites:

- start by **shifting dullness**→ Moderate ascites
- If there is a dullness allover abdomen → **transmitted thrill**→ Sever ascites
- If no dullness→ **knee elbow position** → Mild ascites

b) For Traub's area "see later"

D) Auscultation:

a) For intestinal sounds:

b) Bruit:

Vascular sounds resembling heart murmurs

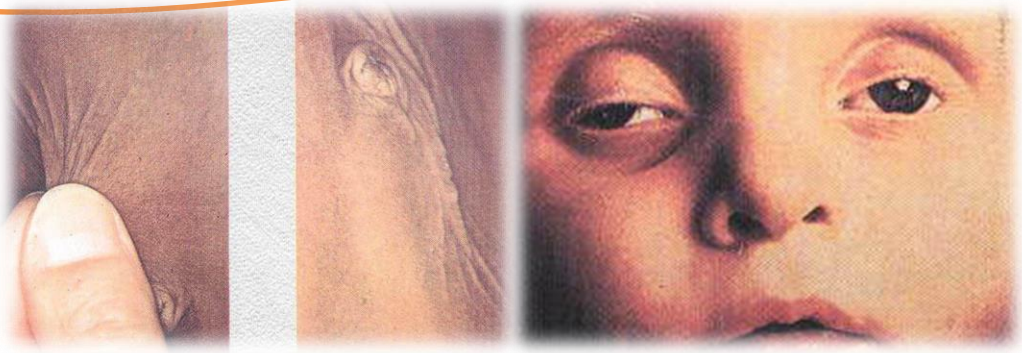
*listen to abdomen before palpation & percussion

Gastroenteritis

General examination

+ Abdominal examination (see below)

+ Dehydration assessment



*dehydration assessment (Station)

	Plan A	Plan B	Plan C
General condition	**Normal**	**Irritable**	**Lethargy or semi comfortable**
Eye	**Normal**	**Sunken eye**	**Sunken eye**
Ability to drink	**Normal**	**Lethargy or thirsty**	**Unable to drink**
Skin pinching	**Goes back rabidly**	**Slowly <2sec**	**v. slowly >sec**

-If you find any 2 criteria you determined the plan

Hepatosplenomegaly for DD

-CHA

-**Infection** {constitutional symptoms FAHM, toxic face}

-**Malignancy** {rapid loss of WT & cachexia}

-**Autoimmune** {skin rash, arthropathic}

-**Metabolic storage disease (MSD)**

By History:

-Early onset

-Positive FH - consanguinity

-Associated problems

By Examination:

-Abnormal facies??

-Short stature

-Usually massive HSM

-Diagnosis:

HSM for DD most probably MSD

Neurology

Neurology sheet

Leading questions of CNS

1) Symptoms suggestive increase ICT:

- Headache
- Vomiting (without nausea)
- Blurring of vision

2) Symptoms suggestive cranial nerve affection:

- **1-**olfactory n→ ask about the sense of smell
- **2-**optic n → ask about acuity of vision-field defects
- **3-4-6 (ocular n)**→ ask about diplopia-squint –ptosis
- **5-**trigeminal n → *motor: ask about mastication
  - *Sensory: ask about face sensation
- **7-**facial→ask about
  - inability to close the eye
  - inability to raise the eye brow
  - Deviation of angle of the mouth to normal side
  - dribbling of saliva from one side
  - Accumulation of food in one check
  - Inability to whistle

Upper face

Lower face

- **8-**Cocheleo-vestibular n→
  - Cochlear →ask about hearing-tinnitus
  - Vestibular→ask about vertigo
- **9-**Glossopharangeal - **10-**Vagus - **11-**Accessory **(bulbar n)**→ ask about:
  - Dysphagia
  - Change of voice chocking
  - Hoarseness of voice (dysphonia)
  - Nasal tone

  - Nasal regurgitation
- **12-**Hypoglossal→ Ask about
  - Dysarthria
  - Defective tongue movement

3) Symptoms suggestive motor system affection:

- Paralysis or paresis (ask about it is distribution)
- Tone (hypertonia or hypotonia)
- Wasted or muscle bulk
- Abnormal involuntary movements
- Tremors → static /kinetic present during movements
- Incoordination of movement –ataxia

In in previous symptoms you must ask about

- Unilateral or bilateral
- Upper or lower
- Proximal or distal

4 Symptoms suggestive sensory system affection:

- Superficial sensation:
  - Hypoesthesia – Hyperesthesia – Paresthesia
- Deep sensation:
  - Feeling as if walking on cotton -Falling just after closing of his eye

5 Symptoms suggestive sphincter disturbances:

6 Symptoms suggestive speech abnormalities:

- Aphasia -Dysarthria

7 Symptoms suggestive gait abnormalities:

- 1ry inability to walk -2ry inability
- Types of gait:

  *drunk→cerebellar *Dancing→chorea *Limping→hemiplegia & polio

8) Symptoms suggestive disturbance in consciousness:

- Loss of consciousness -convulsion

9) Symptoms suggestive convulsions or fits:

- Febrile convulsion

- grand mal epilepsy "Generalized tonic-clonic epilepsy"
- petit mal epilepsy "Absent epilepsy"

10) Symptoms suggestive skull & back abnormalities

- Skull→abnormal shape –Size- swelling -tuft of hair
- Back→ Spina bifida—swelling (meningocele)

Neurological Examination

Consciousness ونفس المقدمة اللي في الجينيرال

HC → microcephaly indicates MR

Motor system examination

a) Muscle state

- Muscle bulk
  - Atrophy → True=LMNL
    → Disuse=UMNL
  - Hypertrophy → true=increase power
    → Pseudo=decrease power
- Abnormal position:
  - Scissoring → with hypertonic CP
  - Frog leg → with hypotonia
  - Joint contracture → Due to atrophy or fibrosis in muscles
- Abnormal movement:
  - Chorea → jerky movement of proximal part of limb
  - Athetosis → Snake like movement or writing movement of distal part of limb
  - Dystonia→ hyperextension & twisting of limb
- Fasciculation → Oscillatory movement of muscle with irritation of AHC

b) Tone:

Tone is the resistance felt when a joint is moved **passively**

- Normal tone → normal resistance
- Hypertonia → *clasp knife spasticity* = Pyramidal tract lesion "as spastic CP
  - *Lead pipe rigidity* = extrapyramidal "as Rigid CP"
- Hypotonia in LMNL & Floppy infant

c) Power:

Active movement of limb **without** resistant then **against** resistant

- *Grades:*

0→ No movement 1→ Contraction without movement of limb

2→ With elevation of gravity 3→ Against gravity

4→ Against mild resistant 5→ Against normal resistant

d) Reflexes

- *Superficial Reflexes*
  - **Planter reflex "S1,2 mainly S1"**

Scratch the outer aspect of the sole of the foot using a blunt object

Planter flexion of the big toe = normal response

Dorsal flexion of the big toe = +ve. Babinski sign "s1" = UMNL

بشرط ان الطفل يكون اكبر من سنتين وصاحي
طبيعي جدا لو اقل من سنة او لسه موقفش لان لسه محصلش Myelination of nerves

- **Abdominal reflex "T6-T12"**

Scratch the skin of the abdomen using a blunt object from outside inward on both sides at 3 levels "Upper T6-T8, Mid T8-T10 & Lower T10-T12"

- Shifting of the umbilicus toward the stimulation = normal

- No response = UMNL

- **Others**
  - Cremasteric reflex (L1) Gluteal reflex (L4,5) Anal reflex (S3,4,5)

- *Deep reflexes*

اهم حاجة اعمل Good exposure to the muscle وحس الـ Tendon واخبط عليه وانت باصص على العضلة وامسك الـ Hammer صح

- **Lower limb**

  Ankle Reflex "S1,2" **Knee Reflex "L2,3,4"**

- **Upper limb**

  Brachioradialis Reflex "C5,6" **Biceps Reflex "C5,6"** **Triceps Reflex "C6,7"**

Pathological reflexes (In hyperreflexia only)

Patellar reflex "L2,3,4" **Adductor reflex "L4"**

Clonus (In hyperreflexia only)

Sudden sustained stretch of tendon → continues contraction in UMNL

Patellar clonus "L2,3,4" **Ankle clonus "S1,2"**

Neonatal reflexes

Reflexes	Stimulus	Response	Time
Moro reflex	1) Allowing the infant's head to fall backwards on the examiner's head 2) Making a loud noise 3) Sudden withdrawal of the blankets from below the infant 4) Sudden application of cold or painful stimuli	Extension & abduction followed by flexion & adduction (embracing movement) in both upper & lower limbs	28 W of GA → 4 mon

Stepping reflex	The infant is held upright and inclined forwards with the soles of the feet touching a flat surface	Walking movement	Birth → 6w
placing reflex	The infant is held upright with the sole of one foot touching the flat surface of a table and the dorsum of the other foot touching the under edge of the table	Flexion followed by extension of the later leg to bring it on the upper surface of the table	Birth → 6w
Rooting reflex	Stimulation of the cheek near the angle of the mouth	Turning the mouth towards the stimulus	Birth → 4 mon
Suckling reflex	Stimulation of the lips	Repeated suckling movement	Birth → 4 mon
Grasp reflex	a) **Palmer grasp reflex** stimulation of the palmar surface of the hand by light touch b) **Planter grasp reflex** stimulation of the sole of the feet	Grasp response	28 W of GA → 6mon 28 W of GA → 10 mon

Significant of all NEONATAL REFLEXES

1) Normal reflex → normal CNS

2) Absent reflex →

Totally absent: Occurs in CNS injury, Hge, depression or anesthesia

Asymptomatic: Brachial plexus palsy -fracture clavicle -fracture humerus

3) Exaggerated reflex → CNS irritation e.g.: kernicterus, Hge.

4) Persistence after normal time of disappear → Cerebral palsy -MR

Signs of floppy infant

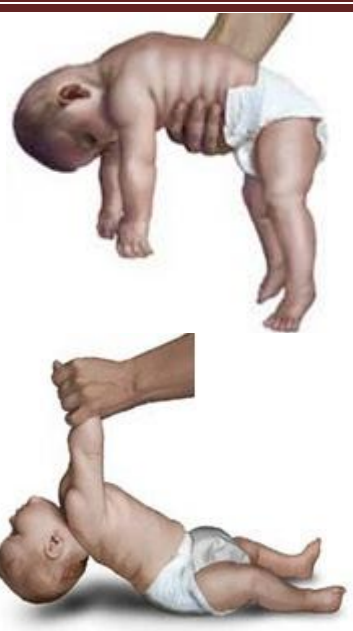
-Hypotonia

-Head lag

-Slipping on vertical suspension

-Inverted U shape in transverse suspension

-Frog leg sign



Cerebral palsy "CP"

CP or not

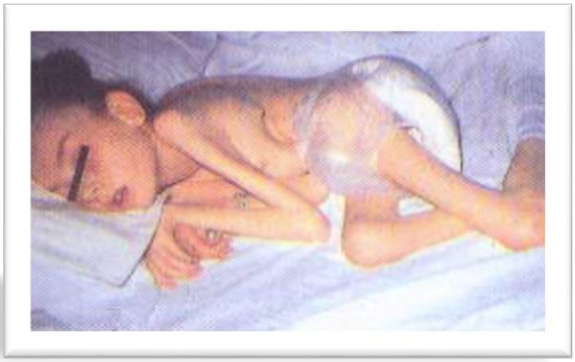
By definition

"Stationary" "central motor deficit"

"affecting growing brain"

"فيه مشكلة في الحركة" "ثابتة"

"وبدأ من ساعة الولادة او اول سنتين من العمر"



*Usually associated with other brain disorders

Etiology

- Post anoxic
- post meningoencephalitis
- Post hemorrhagic
- Post kernicterus

Types:

- ***Spastic*** → Clasp knife spasticity | +ve. Babinski | Pathological reflexes or clonus
- ***Rigid*** → Lead pipe rigidity | Abnormal movements "Chorea, Athetosis or Dystonia"
- *Atonic* → Hypotonia | Hyperreflexia
- *Ataxic* → Ataxia | Hypotonia | Hyporeflexia
- ***Mixed*** → سلطة

Distribution:

*Detected by Power but in mentally retarded patient **by tone**:*

- Monoplegia - Hemiplegia
- Paraplegia - **Quadriplegia** or it's special types

Associations & complications:

- *Most common associations*
  - Pseudobulbar palsy (motor affection يعتبر تبع)
  - Deafness - Blindness - Convulsion - MR
- *Most common complications:*
  - *Chest infection*
  - *Growth retardation*

Examination of CP:

Motor system examination

- Muscle state
  - Muscle bulk→ disuse atrophy
  - Abnormal position→ as scissoring in **Spastic CP**
  - Abnormal movements→in **Rigid** CP
- Tone
  - To determine distribution of paralysis
  - Clasp knife →**Spastic**
  - Lead pipe→**Rigid**
- Power & coordination→ Not co-operative أو MR غالبا العيان
- Reflexes
  - +Ve Babinski→ **Spastic**
  - Pathological reflexes & clonus → **Spastic**

- **Diagnosis:**

As …post-anoxic spastic quadriplegic CP associated with MR & convulsion complicated with chest infection & growth retardation

CP sheet

1) Personal history: عادي

2) c/o: بلفظ الأم + الفترة الزمنية

3)HPI:

- **Analysis the complain** أحلل الشكوى

- *Motor affection*
  - **عنده مشكلة في الحركة ؟**
  - *Distribution* ؟ ايه الأطراف المصابة
  - *Hyper or hypotonia* جسمه بيبقى مخشب ولا مرخرخ
  - *Abnormal movements* ؟ اوصفيهالي ؟ فيه أي حركات لا إرادية بيعملها
- *Associations*
  - *Sensation* ؟ بيحس بالمياه الباردة والساخنة
  - *Cranial nerves* بيشوف ؟ بيسمع ؟ عينه احولت ؟ فمه اتعوج على ناحية ؟ مبيعرفش يمضغ او يبلع ؟ المياه بترجع من زوره ومناخيره ؟
  - *Convulsions* ؟ بيجيله تشنجات
- *Complications*
  - *Repeated chest infection* بيجيلوا نزلات على صدره كتير

4) *Perinatal history:* هاااام جدا

- *Prenatal history:* **عادي**
- *Natal history:* **عادي بس متنساش**
  - *Obstructed or prolonged labor* اتزنق أثناء الولادة أو الولادة طولت والدكتور استخدم شفاط او جيفت ؟
  - اتخبط أثناء الولادة او حصله أي إصابة او مشاكل ؟
- *Post-natal history:*
  - *Delayed first cry* ؟ عيط أمتى
  - *Incubation or NICU* ؟؟ ليه ؟ هل دخل حضانة او رعاية مركزة
  - *History of cyanosis* ؟ ازرق
  - *History suggestive of kernicterus* اصفر ؟ صفرة عادية ولا صفره عالية اوي احتاج معاها حضانة او تغيير دم ؟
  - *History suggestive of meningitis or encephalitis*
  - سخن جدا والسخونية كان معاها تشنجات أو اتحجز في مستشفى الحميات
  - *History of head trauma &ICH* اتخبط او نزف او جاله نزيف في المخ بعد الولادة ؟
    - **آخر سؤالين لو حصلوا بعد شهر من الولادة هحطهم تبع الـ"HPI*

4) Developmental history: "عشان التخلف العقلي *MR"*

5) Dietetic history عشان الـ *growth retardation*

6) Past history + family history عادي من الـ *General sheet*

Hydrocephalus

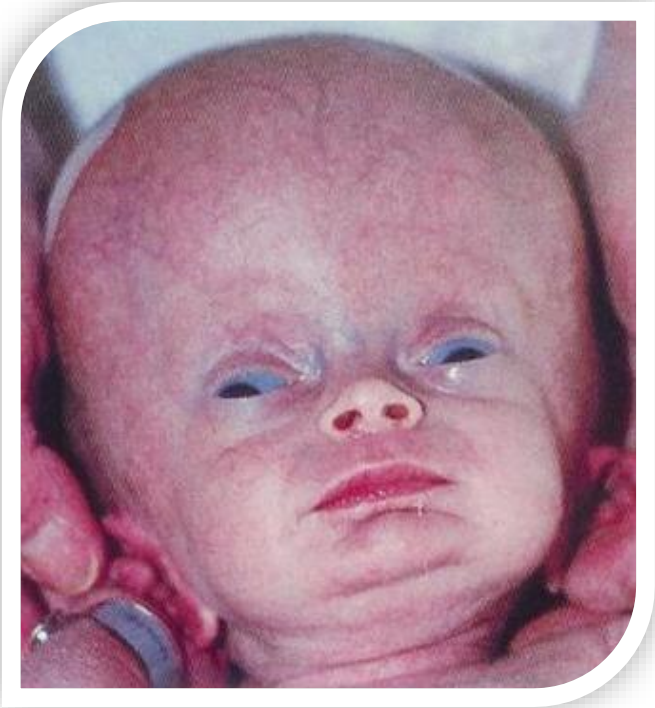
Hydrocephalus or not

By History:

-History of increase head size & or motor system affection

By Examination:

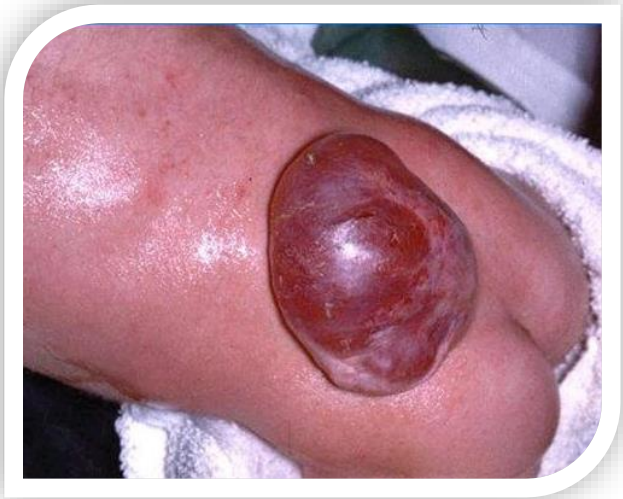
a) H&N:



- Increase HC
- Bulge (symmetrical or asymmetrical)
- Delayed closure of AF (or widely opened)
- Wide separation of the sutures
- Skin → Thin, stretched, shiny with visible veins
- Swelling → Reservoir of shunt
- Others "محدش بيعملهم"
  - McEwen sign→ resonant percussion of skull bone
  - Transillumination test
  - Craniotabes

b) Face

- Sunset appearance of eyes



c)Neurological examination:

- As CP

d)Back examination

Search for **Meningocele** and **Meningomyelocele**

Etiology:

- Congenital
- Acquired
- If unknown cause→ idiopathic etiology

Associations & complications:

- Motor system affection→ as CP (but not CP)
- Cranial nerve affection as blindness-squint……Etc.
- Convulsion
- Chest infection
- Growth retardation

Diagnosis:

as: A case of acquired hydrocephalus of idiopathic etiology associated with spastic quadriplegia complicated with chest infection

Hydrocephalus sheet

1) Personal history: عادي

2) C/O: بلفظ الأم + الفترة الزمنية

Progressive increase in skull size وغالبا بيكون حجم رأسه بيزيد بطريقة ملحوظة

associations & complications او أي شيء من الـ

3) HPI:

- Analysis the complain أحلل الشكوى
- Onset of skull enlargement & Course لاحظتي ان رأسه بدأت تكبر من أمتى ؟ ومن وقت الولادة ولا بعد الولادة؟ فجأة ولا بالتدريج ؟ والموضوع ثابت ولا بيزيد ؟
- Mass in back هل فيه حاجة "كولكيعه" كانت او موجودة في ظهرة
- Associated neurological manifestation واسأل نفس أسئلة الـ CP
- Associations
  - Sensation بيحس بالمياه الباردة والساخنة ؟
  - Cranial nerves بيشوف ؟ بيسمع ؟ عينه احولت ؟ فمه اتعوج على ناحية ؟ مبيعرفش يمضغ او يبلع ؟ المياه بترجع من زوره ومناخيره ؟
  - Convulsions بيجيله تشنجات ؟
- Complications
  - Repeated chest infection بيجيلوا نزلات على صدره كتير

4)Perinatal History → as CP وأركز على

- Antenatal history:
- Natal history: Birth trauma →IC HG→hydrocephalus
- Postnatal history: Encephalitis or meningitis سواء في اول شهر او بعد كده

سخن جدا وكان مع السخونية تشنجات او اتحجز في مستشفى الحميات؟

7) Developmental history, Dietetic history, Past history

8)Family history:

- *Stenosis aqueduct of Sylvius (XLR)* حد من اخواته او خيلانه عنده نفس الحالة
- *Familial macrocephaly* حد في العيلة رأسه كبيرة عن اللازم

Duchenne Myopathy

LMNL:

- Weakness or paralysis
- Hypotonia
- hyporeflexia
- muscle wasting

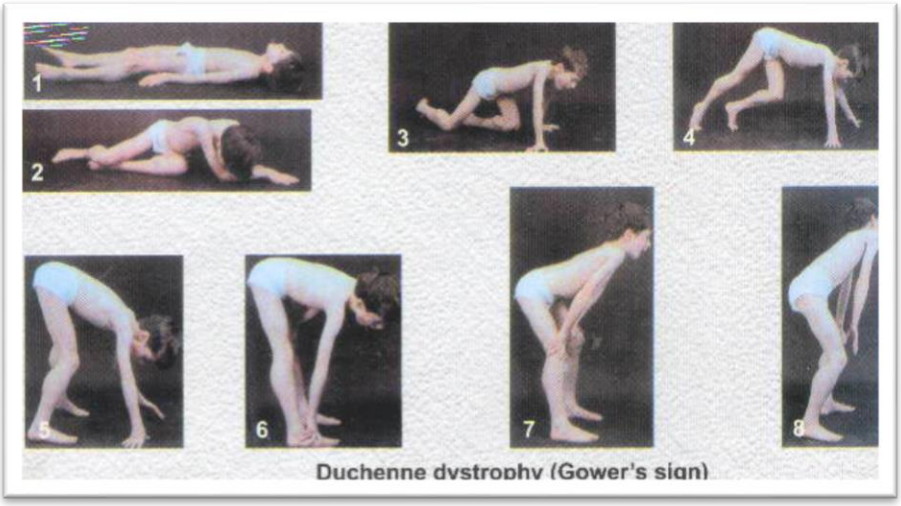
Of myopathic pattern:

Purely motor

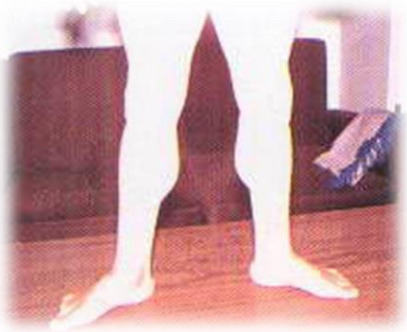
- Bilateral& symmetrical
- Proximal > Distal

➔ + ***Special signs***

- ✓ Slipping on vertical suspension
- ✓ Winging of scapula
- ✓ Exaggerated lumber lordosis
- ✓ **Gower's sign**
- ✓ Waddling gate



Duchenne myopathy:



- Pseudo-hypertrophy in some muscles → as deltoid & calf muscle
- XLR → affects males?
- Start in **1st decade**

Diagnosis:

A case of LMNL of myopathic pattern most probably Duchenne myopathy

Duchenne sheet

1) Personal history:

1) Personal history: Male زي اللي فات بس العيان

2)CIO: بوصف الأم وغالبا هتبقى مشكلة في الحركة انه معادش قادر يمشي او بقى بيقع لما يمشي وهكذا

- *Progressive muscle weakness as frequent falling during walking*
- *2ry inability to walk*

3)HPI:

- *Analysis of the complain*
- *Motor affection→purely motor – bilateral & symmetrical – Proximal > distal*

بدأ أمتى "في العقد الأول من العمر"

فجأة ولا بالتدريج

بيزيد ولا بيقل "بيزيد بطريقة ملحوظة"

ايه الأطراف اللي متأثرة

بيعرف يمشي أو يقوم لو قعد ؟

بيلبس الجاكت ولا بيسرح شعره أفضل ؟

بيلبس الشبشب ولا بيطلع السلم افضل ؟

عنده أي مشاكل في الإحساس او الإحساس قل او اختفى ؟

- *Ask about complications as cardiac symptoms* مثلا بدأ ينهج كتير ويعرق أو رجله بدأت تورم
- *Ask about any renal troubles* عنده مشاكل في التبول

4)Family history: Of similar condition

ولما أسأل بسأل عن إخواته وأخواله

Cretinism

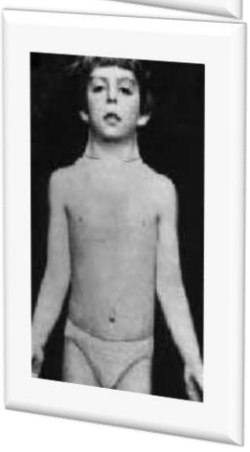
-Short stature -Coarse hair -Coarse facies

-Protruded tongue -Pot belly abdomen -Umbilical hernia

Turner

- Female - Short stature - Low set ear

-Webbing neck -Wide separation of nipple -Wide carrying angle



Cardiology

History:

Leading questions of Cardiology

Symptoms of pulmonary venous congestion:

- Cough
- Expectoration
- Dyspnea, paroxysmal nocturnal dyspnea or orthopnea
- Hemoptysis

Symptoms of systemic venous congestion:

- Dyspepsia
- Pain in the RT hypochondrium or epigastric pain
- Edema in both LL
- Abdominal distention

Symptoms of low COP:

- Lack of concentration, dizziness, syncopal attacks
- Oliguria
- Pallor & coldness of the extremities

Other symptoms:

- ✓ **Cyanosis**
- Palpitation -Chest pain - Fever -Jaundice

Past history:

- ✓ In congenital HD "Prenatal history"

- ✓ In Rheumatic HD:
  - History of rheumatic fever
  - Repeated tonsillitis
  - Long acting penicillin

Family history:

- Rheumatic or CHD

Cardiological Examination

Inspection

- Pericardial bulge: - tangential to the pt. من عند رجلين العيان
- Skin → scares , pigmentation & dilated veins
- Pulsations (inspection & Palpation)بشوف بعيني واتأكد بايدي

Palpation

➔ **Pulsations**

- *Apical pulsation* "Comment on the apex"سؤال → the lowermost outermost point of pulsation
- *Epigastric pulsation* → Epigastrium
- *Lt. Parasternal* → 3,4,5 Rt. intercostal spaces at Rt. parasternal line
- *Rt. parasternal* → 3,4,5 Lt. intercostal spaces at Lt. parasternal line
- *Aortic pulsation* → 2nd Rt. intercostal space
- *Pulmonary pulsation* → 2nd Lt. intercostal space
- *Suprasternal* → At suprasternal notch

Thrills "inverted Z shape"

- *Apical thrill*
- *Lt parasternal thrill*
- *Basal thrill* → at aortic and pulmonary area

Auscultation

Comment on

- *S1* → At the apex
- *S2* → At the base
- *Additional sounds* "usually not important in examination"
- *Murmur "at site of maximum intensity"* → Site , propagation , character & time

Areas of auscultation

- Apex → Cone & Diaphragm – if you find a murmur detect the propagation to axilla & sternum
- T
- A1 - If you find a murmur ascend to the neck & descend to the apex
- P
- A2
- Lt parasternal area → VSD
- Lt infraclavicular area → PDA
- Lt interscapular area → coarctation of Aorta

Congenital HD (manifestations appears <5y)

- ✓ Cyanotic → F4 (Fallot tetralogy)
- ✓ Acyanotic → VSD

Rheumatic HD (manifestations appears>5y)

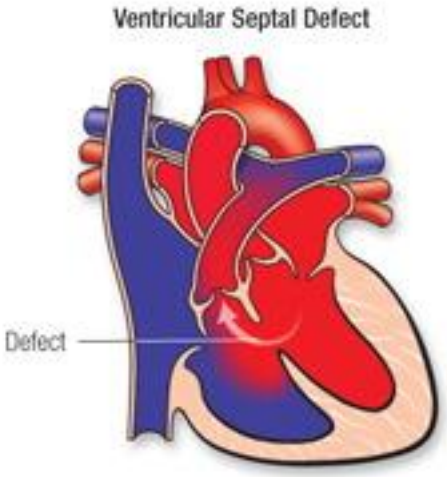
MS, MR, AS, AR

VSD

VSD or not

- ✓ The condition started < 5y → Congenital HD
- ✓ No Cyanosis from the start "may appear later on??"
- ✓ Thrill→Lt parasternal
  Murmur→ Harsh "usually" pan-systolic murmur of VSD in Lt. Parasternal area Propagated (usually all over pericardium)

➔ VSD



Complications

- Heart failure
- Chest infection
- Pulmonary HTN
- Cyanosis → potential or reverse of shunt
- Growth retardation

History:

- Perinatal history
- LCOP
- Congestive lung symptoms
- History of the complications

Examination: "Due to VSD or its complications"

Inspection & palpation

- Precordial bulge
- Apex → site, size & character
- Other pulsations
- Thrill→**LT parasternal**

Auscultation

- S1 → normal – or overlapped by murmur
- S2 → normal – or overlapped by murmur – or increase in **P** in Pulmonary HTN
- Murmur→Harsh "usually" **pan-systolic murmur of VSD in Lt. Parasternal area** Propagated (usually all over pericardium)

Diagnosis:

A case of Congenital Acyanotic heart disease most probably VSD complicated with …

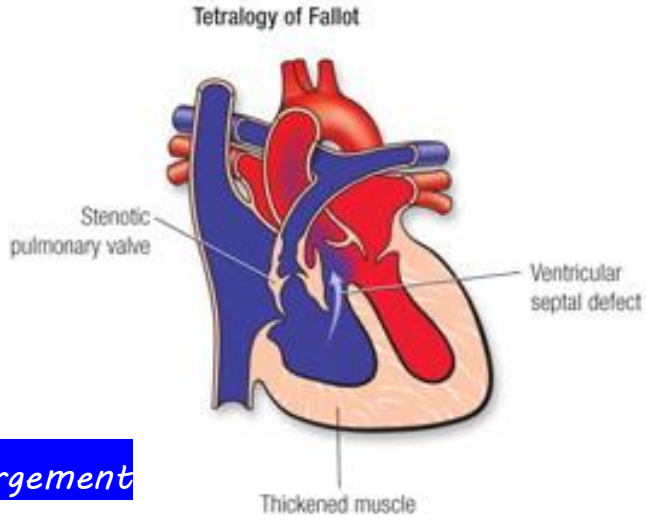
Fallout tetralogy

F4 or not

By History

- ✓ Condition started <5y → **Congenital HD**
- ✓ **Cyanosis** "start around 1 month"

➔ **Congenital cyanotic HD**



By Examination

General findings → overriding of aorta

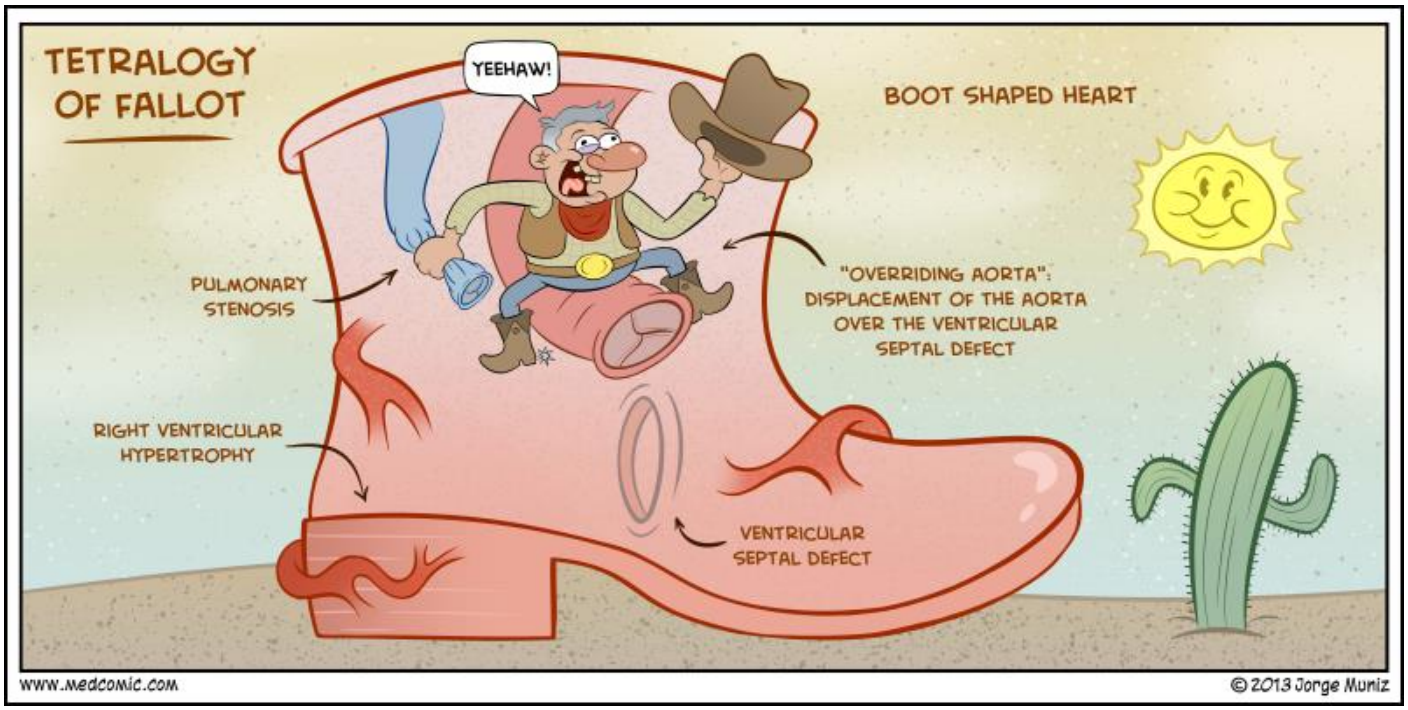
Lt. Parasternal pulsation → Rt. Ventricular enlargement

Ejection systolic murmur in P area → PS

➔ **Most probably F4**

History:

-Cyanosis -Hypercyanotic spells -Squatting



Examination:

General examination: "due to overriding of aorta"

-Cyanosis -Clubbing -Growth retardation - Squatting

Local examination:

a) Palpation:

- **LT parasternal pulsation**→ Due to **Rt. VH**

b) Auscultation:

- *S1*→ Normal
- *S2*→ Single accentuated "Loud"
- *Murmur*→ **Ejaculation systolic murmur at pulmonary area →"due to PS"** may at 3rd space?

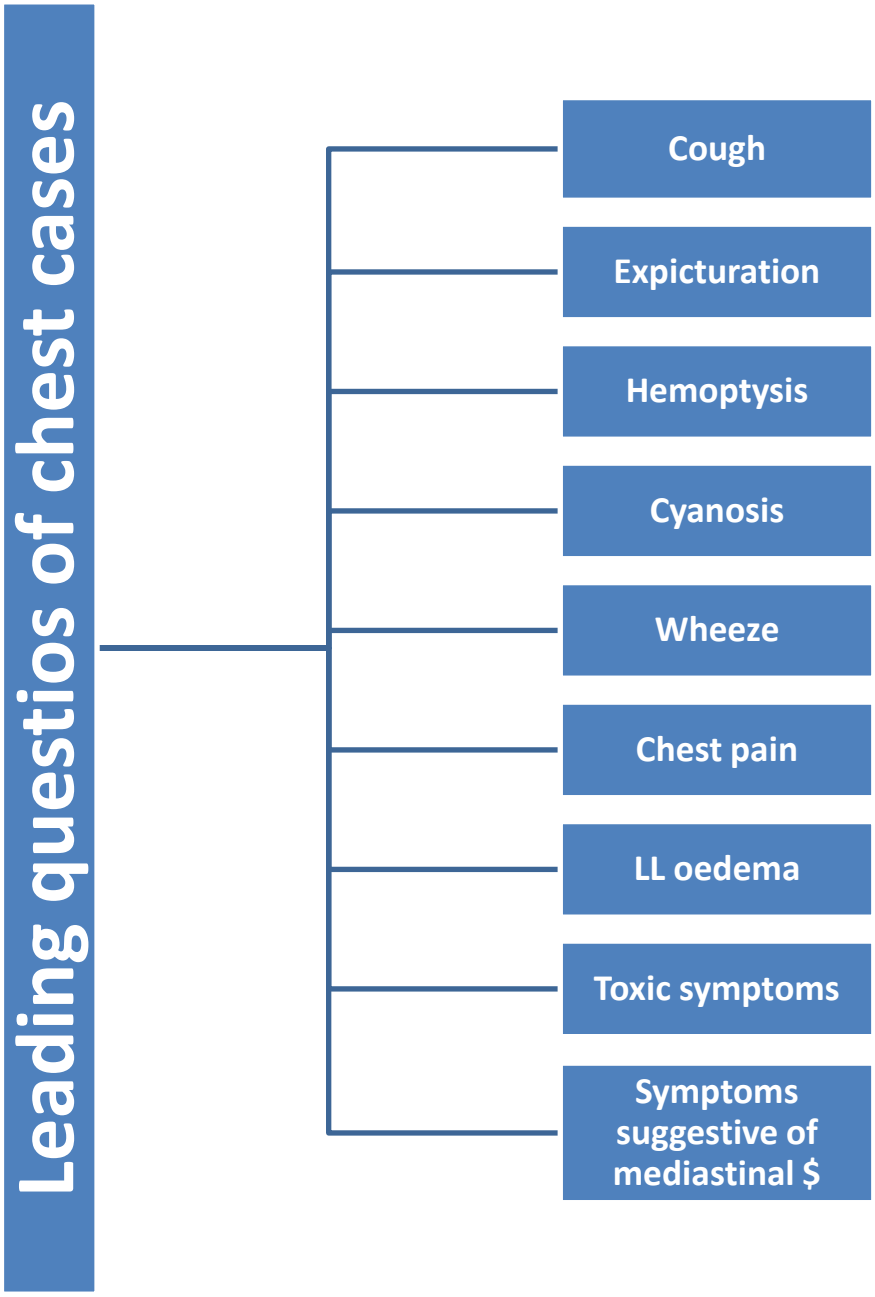
Diagnosis:

A case of congenital cyanotic heart disease most probably Fallot tetralogy

Chest

Chest sheet:

Leading questions of chest case:


Leading questios of chest cases
Cough
Expicturation
Hemoptysis
Cyanosis
Wheeze
Chest pain
LL oedema
Toxic symptoms
Symptoms suggestive of mediastinal $

Chest Examination

Inspection:

"SMS TP + Signs of RD"

-S→ Shape:

(Circular in < 6y is normal)

-M→ Movement (respiratory):

Rate, Rhythm, Type & Depth.

-S→ Skin:

Scar, pigmentation & dilated veins

-T→ Trachea:

Centralized or shifted (trail sign)

-P→ Pulsations

Signs of respiratory distress:

- ➔ **Tachypnea**
- ➔ **Working ala of the nose - Retraction** (suprasternal-intercostal & subcostal)
- ➔ **Grunting**
- ➔ **Cyanosis**

Palpation:

5Ts

1) Trachea 2) Tenderness 3) TVF

4) تزييق → Palpable wheeze 5) تمدد → Chest expansion

Precaution:

a)-For lung proper:

By comparison

In the front and lateral → Light percussion

In the back→ Heavy percussion

b)-For special areas:

Bare area: area from heart not covered by lung

4th & 5th spaces from parasternal line to sternum

Traub's areas: area over the fundus of stomach

5th in MCL - 8th at costochondral joint -9th & 11th in MAL

-Normally tympanic resonant

Kronigs isthmus

Over the apex of the lung.

Limited medially → By a line from the sterno-clavicular joint to 7th cervical vertebrae

Limited laterally→ By a line joining the junction of the medial 2/3 with the medial 1/3 of the clavicle to the spine of the scapula

Auscultation:

a)-For breath sound:

- ✓ Intensity
- ✓ Ch.ch:
  - **Vesicular** → Normal in adult and in pediatrics after 10-12y
  - **Harsh vesicular**→ Normal in children <6y
  - Bronchial breathing→in 3Cs
    - Consolidation - Cavity - Collapse

b)-Additional sounds:

- ✓ -Ronchi:
  - Continuous musical sound
  - Types: a) Sibilant b) Sonorous

- ✓ Crepitation
  - Interrupted sound
  - Types: a) Fine b) Course

Pneumonia

- **Bad general condition (May by history only)**
- Constitutional symptoms (FAHM)
- **Grunting "Pathognomonic"**
- in lobar pneumonia (increase TVF – Dullness in percussion- bronchial breathing)
- Crepitation > Rhonchi "wheeze"

Bronchiolitis

- **Infant < 2years**
- **Fair general condition**
- Rhonchi "wheeze" > Crepitation

Bronchial asthma

➢ ***3Rs:***

- **Recurrent**
- **Relived by bronchodilator**
- **Relative→ +Ve FH**

➢ Rhonchi "wheeze" > Crepitation

Diagnosis:

A case of wheezy chest for DD most probably ……..

Failure to thrive

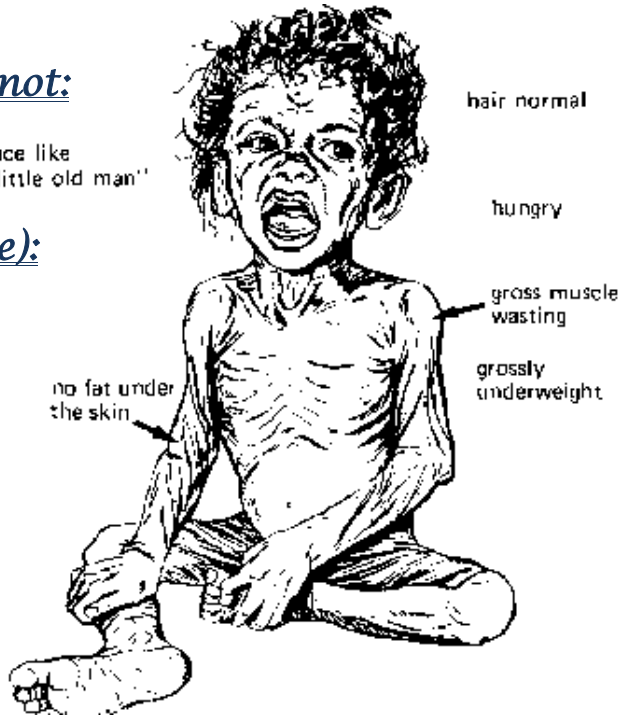
Failure to thrive

- Any growth retardation by complaint or examination
- Range from decrease wt. to marasmus & KWO
- History & examination → as marasmus

Marasmus

Marasmus or not:

-Welcome classification → **<60% without edema**



Types (degree):

-According to loss of subcutaneous fat

- 1st degree →**A**bdomen
- 2nd degree→+**B**uttock
- 3rd degree →+**S**enile face

Etiology:

- 1ry due to dietetic error
- **2ry to other causes as:**
  - GE
  - Infection

- Parasitic infestation
- Congenital anomalies
- Chronic systemic disease

Complications:

- GE - Anemia - Dehydration - Hyper or hypothermia
- Hypoglycemia - Infection - Atrophic rickets

Diagnosis:

Acase of 2nd degree marasumus 2ry due to gastroenteritis complicated with.....

Examination:

المقدمه:- → fair flat irritable in bed

-BDF:

B→ underbuilt F→senile face (in 3rd degree marasmus)

- Vital signs

T → with infection or complications RR → for RTI P → hyperdynamic circulation in anemia

Colours:

-Pallor→anemia

Anthropometric measurements:

- Growth retardation - decreased MAC
- Nutritional assessment→ Welcome <60% without edema

Regional examination:

A) Head & neck:

- Findings of atrophic rickets→ Complications
- Findings of dehydration: → Depressant AF - Dry mouth & tongue

B) Face

- Findings of vitamin deficiency & infection:→ Conjunctivitis - Angular stomatitis

C) Upper &lower limb:

- No edema

d)Skin:

- Loss of subcutaneous fat
  - From abdomen→ 1st D
  - Buttock (extremities) → 2nd D
  - Senile→3rd D

Systemic examination:

-Abdomen or chest usually According to complaint & complication

Marasmus sheet

1-Personal history:

- As usual
- Order of birth

2-c /o:

- Weakness & wasting
- Low body weight
- Failure to thrive
- Related to etiology→commonly repeated GE
- Related to complication→commonly GE or chest infection

3-HPI:

- -Analysis of complaint
- -Causes:
- -complications:

4-Diatitic history: v. important

5-Family history: similar condition – socio economic level

Kwashiorkor

KWO or not:

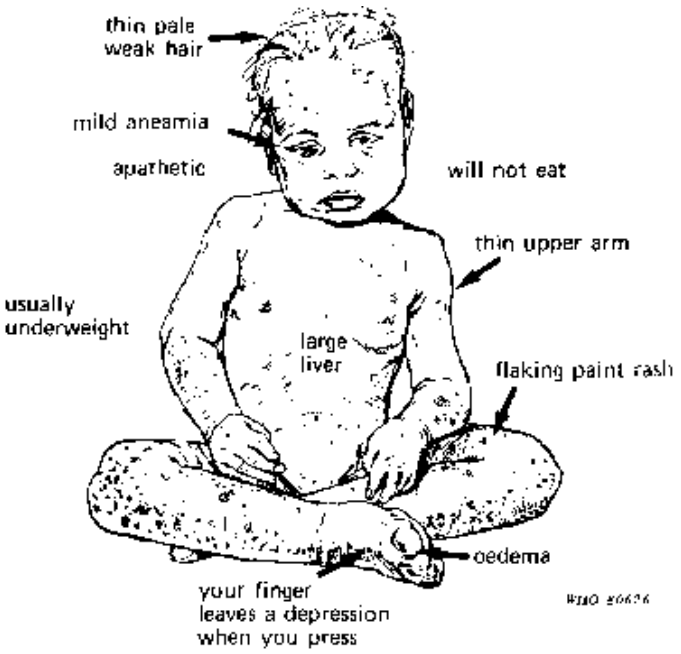
- ✓ Welcome classification >60-80% **with** edema
- ✓ KWO has a **constant features** & variable features.

Constant features:

- ✓ **Mental affection**
- ✓ **Growth retardation**
- ✓ **Edema**
- ✓ **Muscle wasting**

Variable features:

- Hair changes
- Skin changes
- Anemia
- Infection
- GIT & Liver
- Vitamins deficiency



Etiology:

- **1ry to dietetic error**
- 2ry to infection parasitic ……. etc.

Complications:

- Hypothermia - Diarrhea - Infection
- Atrophic rickets - Bleeding – Anemia & Anemic HF Hypoglycemia

Diagnosis:

A case of KWO 1ry to faulty weaning complicated with……

Examination:

-BDF

-F→**Dull apathic facies**

-Vital signs: T→ Specially for infection

-Colours: -Pallor→ Anemia

Anthropometric measurements:

- **Growth retardation** - **MAC→muscle wasting**
- **Nutritional assessment→ Welcome 60%-80% with edema**

Regional examination:

a) H&N:

-Hair →fragile -Buffy face -Signs of vitamin deficiency & atrophic rickets

b) UL&LL

-muscle wasting **-edema**

c) Skin

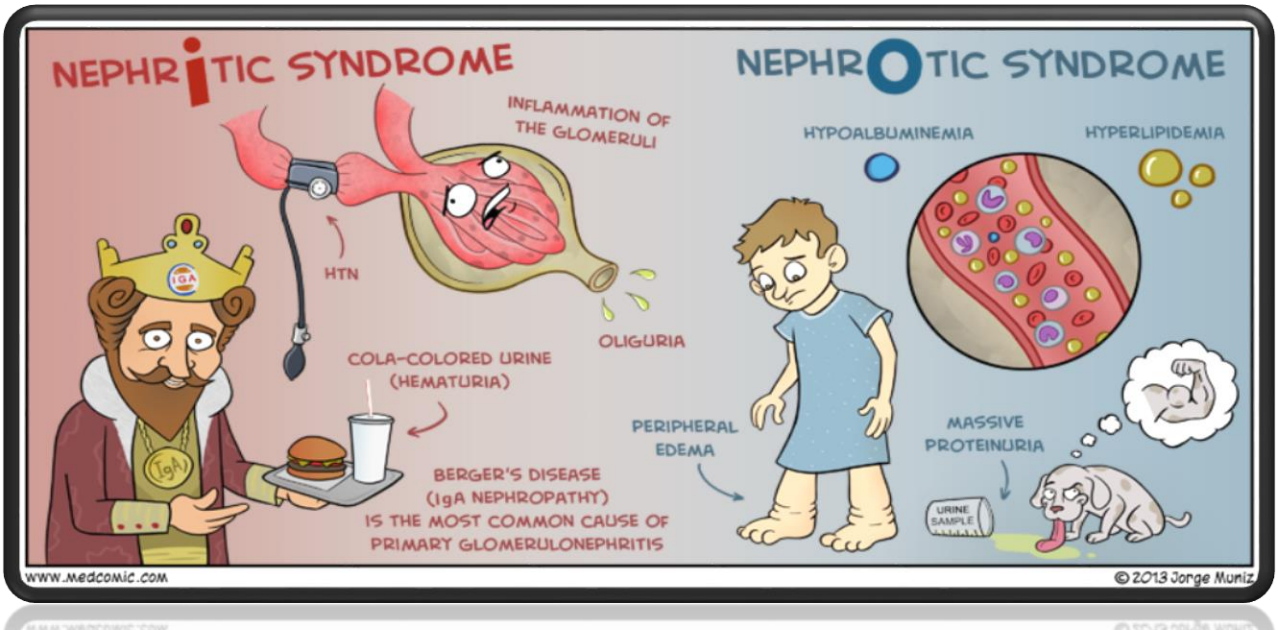
-erythema

-hyperpigmentation & desquamation

abdominal examination: hepatomegaly

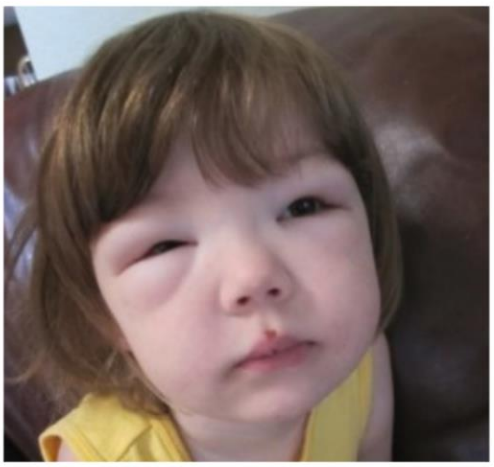
*KWO sheet, as marasmus + edema

Nephrology



Nephrotic $

Edema for DD



Nephrotic or not:

-Renal edema: → Started from eye lid then generalized

-Exclude other cases of edema

-Cardiac→ Started from L.L

-Hepatic→ Started by ascites

-Nutritional→Started in the dorsum of hand &foot, pt. is underweight

- Angioedema →Edema in the lips? – with urticarial wheals

Nephritic nephrotic or not:

Oliguria – Hematuria – Hypertension

Complications:

- Infection
- Complications due to steroid intake
  - Cushingoid facies
  - Short stature

Examination:

F→ **puffy** or **moon face??**

BP→ for **nephritic nephrotic**

Measurements→ **Above normal**

edema→**Pitting** edema - Detect the level

+Abdominal examination

Diagnosis:

A case of edema for DD most probably renal edema most probably Nephrotic $ complicated with .....

Nephrotic sheet:

1-Personal history:

As usual

2-C/O:

Generalized edema or puffy eye lids with or without scrotal or labial edema

3-HPI:

-Manifestations of generalized edema

-DD between the types of edema (renal-cardiac-hepatic-allergic-nutritional

-Nephritic manifestations

-Complications -History of TTT

4-Past history:

-Similar condition -DM -Drugs

5-Family history: No significant

Nephritic $

Dark urine for inv·

Nephritic or not

Oliguria – Hematuria – Hypertension

Mild edema→may not detect by the mother

Exclude by history

Food intake

Drug as Rifampicin

History of trauma or dysuria

Examination:

BP→ أهم حاجه

-Edema "mild" -Abdominal examination

Diagnosis:

A case of dark urine for inv· most probably nephritic $

Bleeding disorders

Purpura for investigations

Eruption without blanching with pressure = Purpuric eruption

Idiopathic thrombocytopenic purpura

*ITP-> of platelet origin

ITP or not:

History = Etiology:

-History of recent infection before onset of purpura?!

Examination:

-Skin→rash:

- **No** special distribution
- **Not** palpable
- **No** Associations

-Lymph node examination → to exclude leukemia

-Abdominal examination→ to exclude leukemia

leukemia

- lymphadenopathy
- HSM
- RBCs→anemia
- WBCs→infection
- Platelets→purpura

Association & complication

-Bleeding per orifices

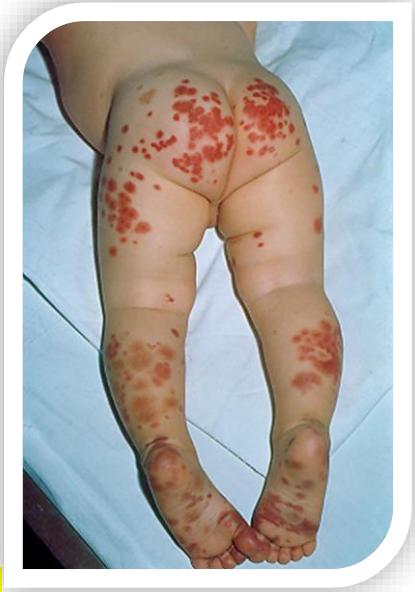
-ICH

Diagnosis:

Purpura for inv. most probably ITP of idiopathic etiology complicated with…

Henoch Schonlein Purpura

*HSP→ of vascular origin



HSP or not

History = Etiology:

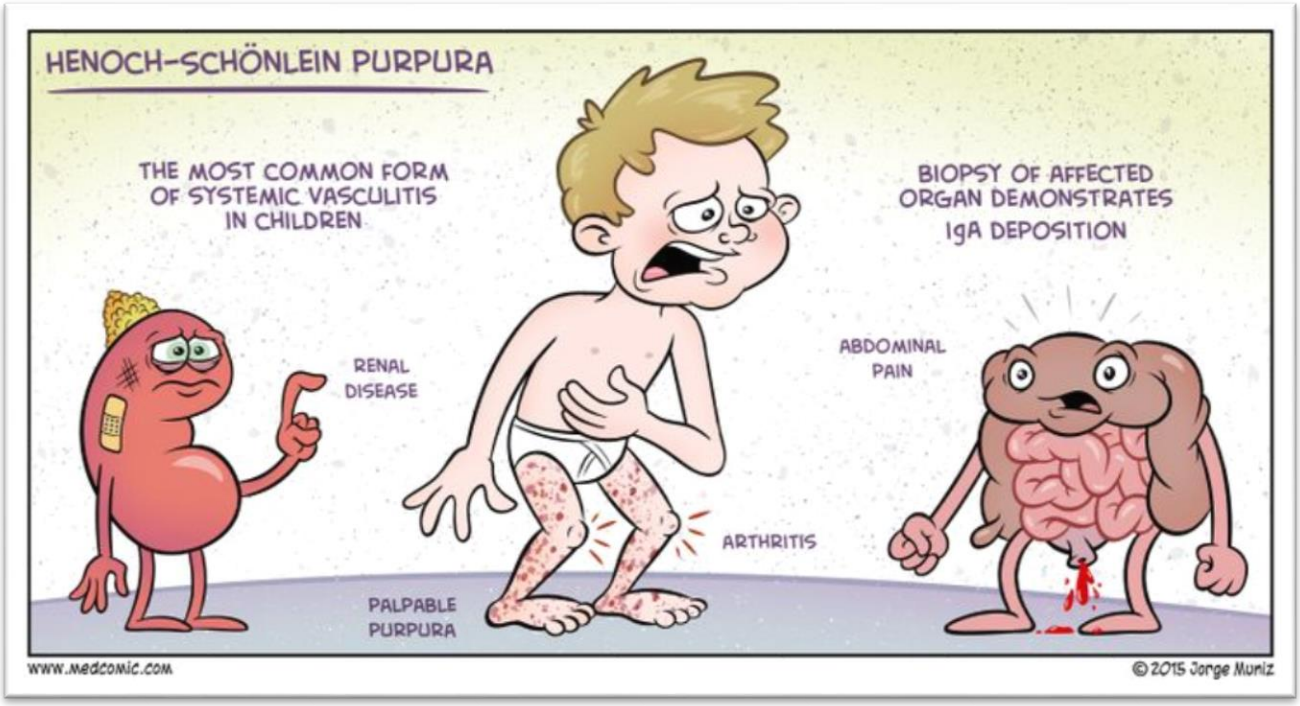
History of infection "Post-strept." or drug intake?!!

Examination:

-Skin→ Rash:

- ✓ Palpable
- ✓ Has special distribution
- ✓ Associations

-L. N examination & Abdominal examination→To exclude Leukemia



Associations:

اسألة 3 اسئلة : عندك مشاكل في التبول , فيه مشاكل في بطنك , فيه مشاكل في مفاصلك..

-**Renal** manifestation→Nephritis

Oliguria-hematuria-hypertension with mild edema

-**GIT**→Abdominal pain – bleeding per rectum

-**Joints**→ arthralgia or arthritis

Complications:

-Renal failure

-Intestinal obstruction "intussusception"

Diagnosis:

Purpura for inv. most probably HSP associated with ……. Complicated with ……

Bleeding disorders sheet

1-Personal history:

As usual but:

1-sex →Male *Henoch Schonlein purpura

* Hemophilia A , B

*Acute leukemia

→Female * ITP

2-consinguinity→ Hemophilia C

2-c /o:

1-skin rash→purpura, ecchymosis

2-bleeding tendency

3-HPI:

-Drug therapy -Recent infection

-Complications

4-Past history:

-Of similar condition

-Systemic disease

5-Family history

Lymph Node Examination

- *Cervical*
- Circular: - Sub mental -Sub mandibular -Pre-auricular -Post-auricular -Occipital
- Vertical: - superficial -Upper Deep cervical -lower Deep cervical
- *Supraclavicular*
- *Axillary:* - -Anterior group -Posterior group -Medial group - Lateral groups - Apical group
- *Upper limb-* Epitrochlear LNs
- *Abdomen:* - Para aortic "umbilical & epigastric" ***-Liver*** ***- Spleen***
- *Inguinal LNs:* - Superficial "transversely" -Deep "vertically"
- *Popliteal*

Comment on

Site – Size - Surface

Count – Consistency – Covering skin

Tenderness – Temperature – Tethering

Short stature

Short stature or not

Height or length < 3rd Centile

Then do → US/LS ratio & Span

Proportionate SHORT STATURE

- **Familial** أبص على الأهل
- **Chromosomal Abnormality** → Down $ - Turner أبص على الوش
- **Nutritional or chronic diseases** اسأل على التغذية والأمراض المزمة
- **Hormonal**

Decrease

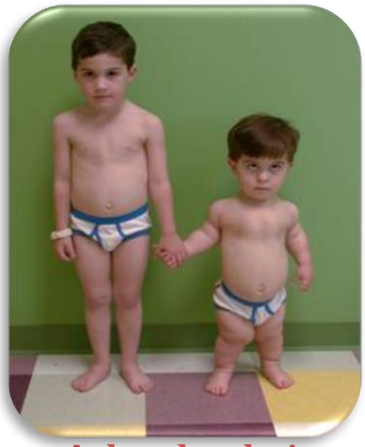
- **GH** →dwarfism
- **Thyroxin** → Cretinism
- **Insulin** → DM

Increase

- **Cortisone** → Cushing or cortisone intake
- **Sex H** → precocious puberty "tall child short adult"

- **Idiopathic=constitutions** → delay growth with delay puberty leading to "Short child but normal adult"

Disproportionate SHORT STATURE



Achondroplasia

Affection to long bone = short LS

- **Achondroplasia**
- **Osteogenesis imperfecta** → multiple fractures الطفل الزجاجي
- **Rickets** → bone deformity

Affection to Trunk = short US

- **MSD**

تم بحمد الله تعالى

لا تنسونا من صالح دعائكم